

Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): An electrical interface assembly comprising:
 - a housing panel comprising at least two electrically-conductive layers separated by insulating material;
 - a through-opening ~~across~~ extending between opposite sides of the housing panel;
 - an interface module, disposed within the through-opening, configured with two flat opposite ends substantially parallel to and located respectively in correspondence with said opposite sides of the housing panel;
 - a pair of contact end ends located respectively on the two flat opposite ends of said interface module facing outwardly from each of said opposite sides of the housing panel, said opposite contact ends in said interface module being made and arranged to provide electrical interface on opposing sides of said housing panel;
 - at least one active electronic device incorporated with said interface module having at least two electrical terminals representing two different nodes of an electrical circuit; and
 - connecting means for electrically connecting the interface module electrical terminals of said active electronic device to at least two corresponding destinations selected from a group including said electrically-conductive layers in the housing panel and said contact ends
 - ~~wherein said opposite contact ends in said interface module are adapted to provide electrical interface on opposing sides of said housing panel;~~
 - ~~wherein said interface module provides an active element to influence a signal between said contact ends in a predetermined manner.~~
2. (currently amended): The interface assembly of claim 1 wherein said interface module includes an electrically-conductive cap on one of the contact ~~end~~ ends.

3. (original): The interface assembly of claim 1, wherein said electrical interface module includes a single-ended-signal interface module between said opposite sides of the housing.
4. (original): The interface assembly of claim 3, wherein an output from the single-ended-signal interface module is connected to an input of a second single-ended-signal interface modules through one of said conductive layers.
5. (original): The interface assembly of claim 1, wherein said electrical interface module includes a differential electrical interface module.
6. (currently amended): The interface assembly of claim 1, wherein said interface ~~modules~~ module comprises a single-contact end on one side of the housing panel and a two-contact end on the opposite side of the housing.
7. (currently amended): The interface connector assembly of claim 1, wherein the active ~~element~~ electronic device is surface deposited onto the module.
8. (currently amended): The interface connector assembly of claim 1 wherein the active ~~element comprises~~ electronic device is implemented as a discrete component contained within the module.
9. (original): The interface assembly of claim 8, wherein the discrete component includes contact pads for connection with said interface module.
10. (original): The interface connector assembly of claim 9, wherein the discrete component is wire bonded to the interface module.
11. (original): The interface connector assembly of claim 9, wherein the discrete component is directly connected to the interface module.
12. (original): The interface assembly of claim 1, further comprising at least one additional through-opening in the housing panel; at least one additional interface module with corresponding additional contact ends, said at least one additional interface module being inserted within the at least one additional through-opening of the housing panel; and at least one additional connecting means for electrically connecting the at least one additional interface module to said electrically-conductive layers in the housing panel;
wherein the additional contact ends provide additional

electrical signals.

13. (original): The interface assembly of claim 12, wherein said interface module and additional interface module are adapted to process differential signals and the interface module is connected to the additional interface module through separate traces in the conductive layers.

14. (currently amended): An electrical signal-source assembly comprising:

a housing panel with at least two electrically-conductive layers separated by insulating material;

a through-opening across opposite sides of the housing panel;

~~an~~ a signal source module, disposed within the through-opening with a contact end facing one of said opposite sides of the housing panel, including signal source means for generating an electrical signal available at the contact end; and

connecting means for electrically connecting the signal-source ~~module~~ means to said electrically-conductive layers in the housing panel;

~~wherein the contact end provides an electrical signal is made available at the contact end.~~

15. (original): The signal-source assembly of claim 14, wherein said contact end includes an electrically-conductive cap.

16. (currently amended): The signal-source connector assembly of claim 14, wherein ~~a~~ the signal source means is surface deposited onto the signal-source module.

17. (currently amended): The signal-source connector assembly of claim 16, wherein the signal source means comprises at least one integrated circuit.

18. (currently amended): The signal-source connector assembly of claim 16, wherein the signal source ~~is~~ means comprises a single-ended signal source.

19. (currently amended): The signal-source connector assembly of claim 16, wherein the signal source ~~is~~ means comprises a differential signal source.

20. (currently amended): The signal-source connector assembly of claim 16, wherein the signal source ~~is~~ means comprises an oscillator.